

REMARKS

This paper is submitted in reply to the Office Action dated November 30, 2005, within the three-month period for response. Reconsideration and allowance of all pending claims are respectfully requested.

In the subject Office Action, claims 1-13, 15-28 and 30-31 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2003/0222872 to Lin et al. (Lin). In addition, claims 14 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin in view of U.S. Patent No. 4,656,592 to Spaanenburg et al. (Spaanenburg).

Applicants respectfully traverse the Examiner's rejections to the extent that they are maintained. Applicants have amended claims 1, 13, 15, 22 and 30. The Examiner will note that Applicants have also amended the specification to include the serial number, filing date and inventorship of the concurrently filed, cross-related application. Applicants respectfully submit that no new matter is being added by the above amendments, as the amendments are fully supported in the specification, drawings and claims as originally filed.

As an initial matter, Applicants wish to thank the Examiner for the courtesy extended to Applicants' representative on February 21, 2006 in the form of a brief telephonic interview. Although the Examiner and Applicants' representative agreed that the issues presented in the rejection would most effectively be addressed in this response, distinctions between the cited art and the present claims were discussed. The Examiner agreed to consider those distinctions in light of the currently amended claims.

Addressing the non-substantive objections of the Office Action, Applicants have amended claim 1 in deference to the Examiner. To resolve any remaining objections of the Office Action, the Examiner is encouraged to read page 6, starting at line 26, for an explanation of "logically linking," as well as lines 23-27 of page 10 of the Application as originally filed for a complete explanation and examples of a signal bearing medium.

Now turning to the art-based rejections of the Office Action, claim 1 generally recites a method for analyzing performance of an electrical design. The method includes

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receiving a plurality of package files. Each package file is descriptive of an electrical attribute associated with a plurality of components of the electrical design and defines a reference connection. First and second package files of the plurality of package files are logically linked by correlating respective reference connections of each of the first and second package files. Travel of an electrical signal is modeled using the logically linked first and second package files to determine a performance characteristic of the electrical design.

As such, embodiments of the present invention are generally directed to modeling performance of an electrical design. As admitted on page 3 of the Office Action, Lin does not contemplate modeling/performance evaluation. Lin instead discloses a method of designing a very large scale circuit, rather than modeling one that is already at least partially designed. The cited portions of Lin are directed to linking physical components together to create a "netlist." The netlist is a schematic diagram that comprises an electrical design (Lin [0006]). The netlist does not contain performance or modeling information, nor should it be expected to. Lin is directed to designing a circuit board, not to modeling travel of an electrical signal through it.

Lin furthermore does not disclose the presently claimed feature of packages comprising a plurality of objects descriptive of an electrical attribute associated with a plurality of components. Lin instead merely shows pins used to connect individual components for the final net design (Lin [00-6]). The presently claimed package files avoid the impracticality of attempting to model signal flow through a design file that comprehensively addresses all aspects of a design (such as may be created by the processes of Lin).

Because Lin does not teach each and every feature of the claimed invention, including at least the modeling and package file features discussed above, it cannot be properly said that the diagram generation methodology of Lin anticipates the modeling analysis processes recited in claim 1.

Furthermore, a hypothetical combination of Lin with Spaanenburg fails to motivate or suggest the features recited in claim 1. The cited portion of Spaanenburg

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merely discloses that circuit simulation is known, and does not suggest the claimed features of logically linking and modeling package files (column 1, lines 40-58). At best, a hypothetical combination between Lin and Spaanenburg would suggest attempting to model a netlist design that is too large to allow for practical simulation.

Applicants respectfully and consequently submit that the prior art of record fails to disclose or suggest logically linking an modeling packaged files as recited in claim 1. Reconsideration and allowance of claim 1, as well as of claims 2-14 that depend therefrom, are therefore respectfully requested.

Independent claim 15 generally recites an apparatus that includes a memory and a database that is resident in the memory that stores a plurality of package files. A program is configured for selectively stitching first and second package files of the plurality of package files by correlating the respective reference connections of the first and second package files. The program is further configured to initiate modeling travel of an electrical signal using the stitched first and second package files to determine a performance characteristic of the electrical design. As above, each package file of the plurality of package files is descriptive of an electrical attribute associated with a plurality of components of an electrical design and has a reference connection correlating to a respective reference connection of another package file of the plurality.

Claim 15 consequently recites package file and modeling features similar to those recited in claim 1. At least for this reason, Applicants respectfully submit that the prior art of record fails to disclose or suggest the features of claim 15 for the similar reasons as those discussed above. Reconsideration and allowance of claim 15, as well as of claims 16-29 that depend therefrom, are therefore respectfully requested.

Independent claim 30 generally recites a program product that includes a program configured to selectively stitch first and second package files of a plurality of package files by correlating respective reference connections of the first and second package files. Each package file is descriptive of an electrical attribute associated with a plurality of components of an electrical design. The program is further configured to initiate modeling travel of an electrical signal using the stitched first and second package files to

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determine a performance characteristic of the electrical design. A signal bearing medium bears the program.

Claim 30 is generally a program product implementation of the method of claim 1. As such, claim 30 recites the package file and modeling features that are patentable over the cited prior art, as discussed above in connection with claim 1. Applicants respectfully and consequently request reconsideration and allowance of claim 30, as well as of claim 31 that depends therefrom.

In summary, Applicants respectfully submit that all pending claims are novel and non-obvious over the prior art of record. Reconsideration and allowance of all pending claims are therefore respectfully requested. If the Examiner has any questions regarding the foregoing, or which might otherwise further this case onto allowance, the Examiner may contact the undersigned at (513) 241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

2/28/06
Date


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